

Fig. 1. A upper mismatched layer where some of the strain has relaxed by the formation of mismatch dislocations

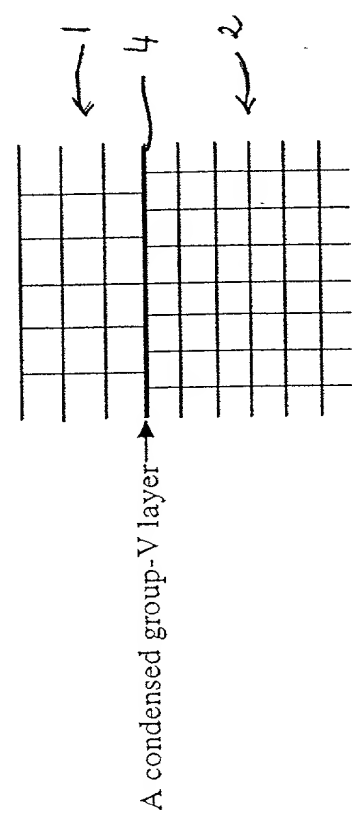


Fig. 2. Schematic representation of how lattice mismatch is taken by a condensed layer of group-V species in this invention.

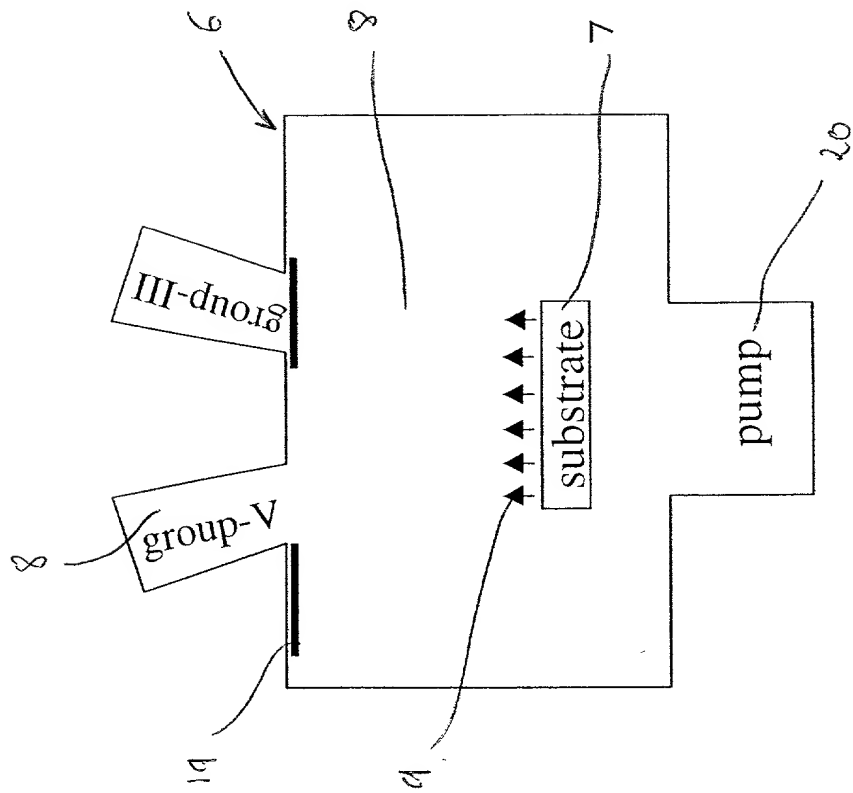


Fig. 3

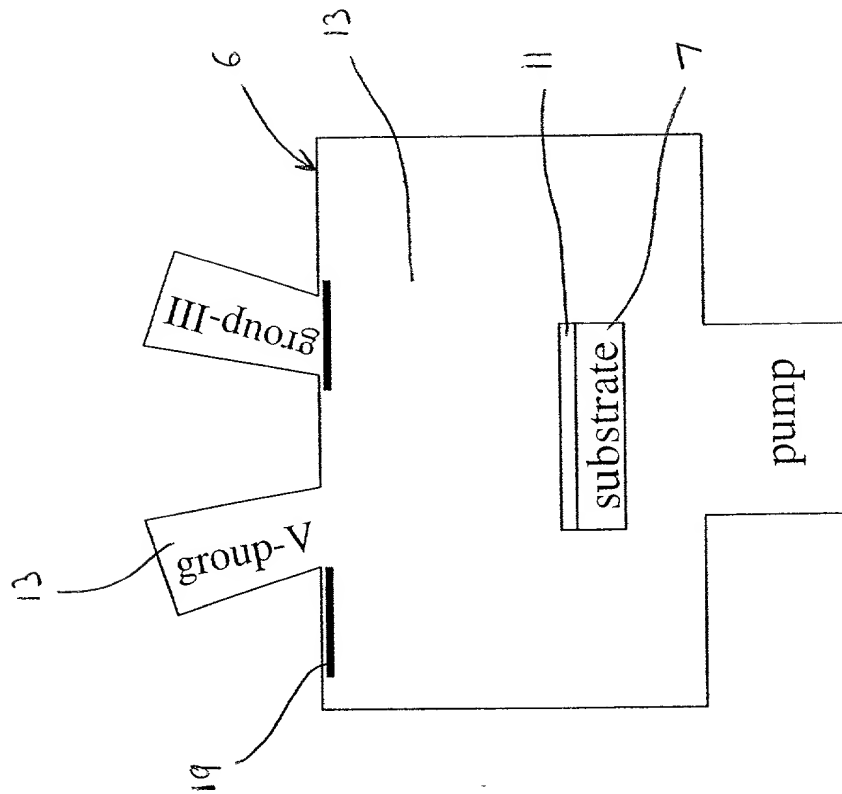


Fig. 4

FIG. 5 is a schematic diagram of a device 6, which is a cross-sectional view of a device 6. The device 6 includes a substrate 7, a pump 8, a group-V 9, a group-III 10, and a III-dnois 11. The device 6 is shown in a cross-sectional view, with the substrate 7 at the bottom, the pump 8 on the right, the group-V 9 on the left, the group-III 10 on the left, and the III-dnois 11 on the left. The device 6 is shown in a cross-sectional view, with the substrate 7 at the bottom, the pump 8 on the right, the group-V 9 on the left, the group-III 10 on the left, and the III-dnois 11 on the left.

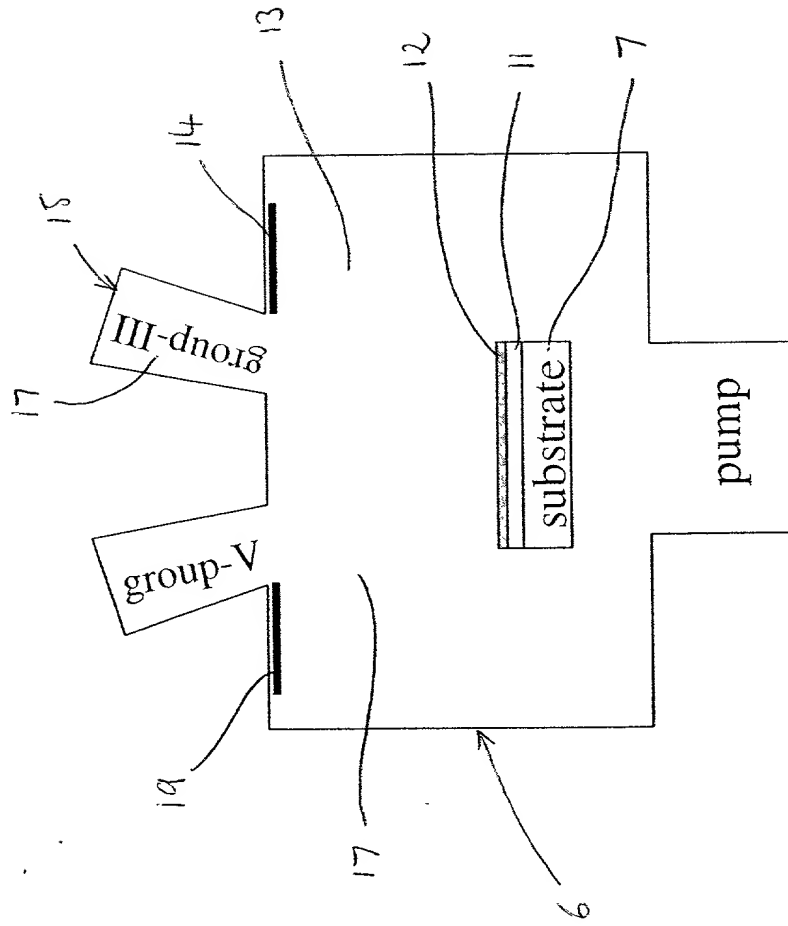


Fig. 5

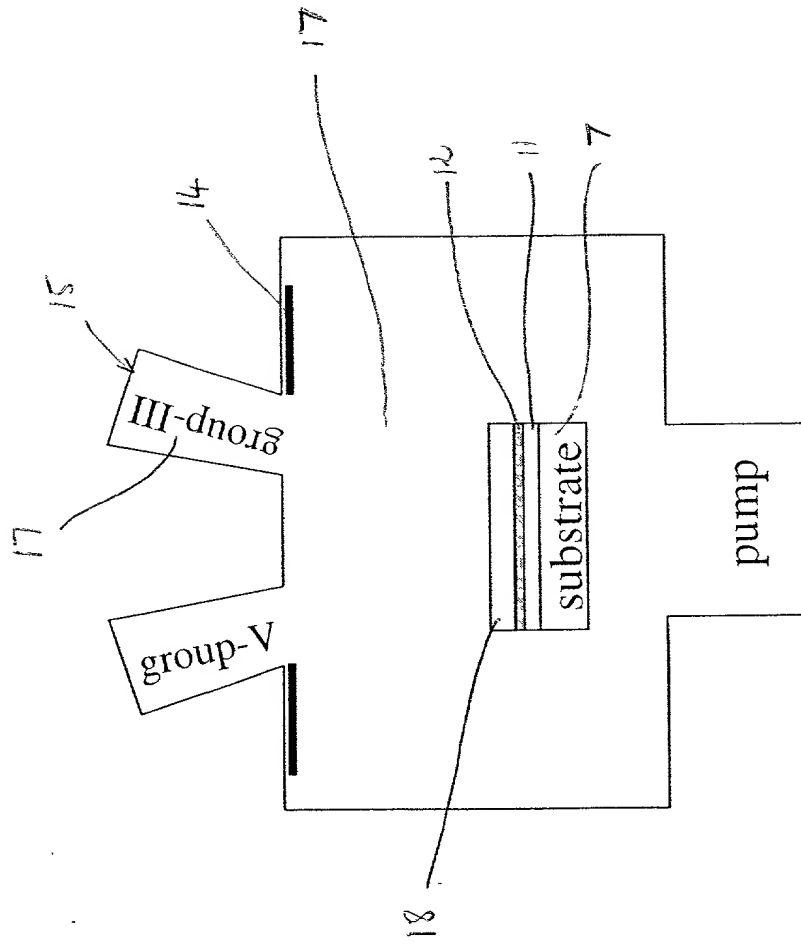


Fig. 6

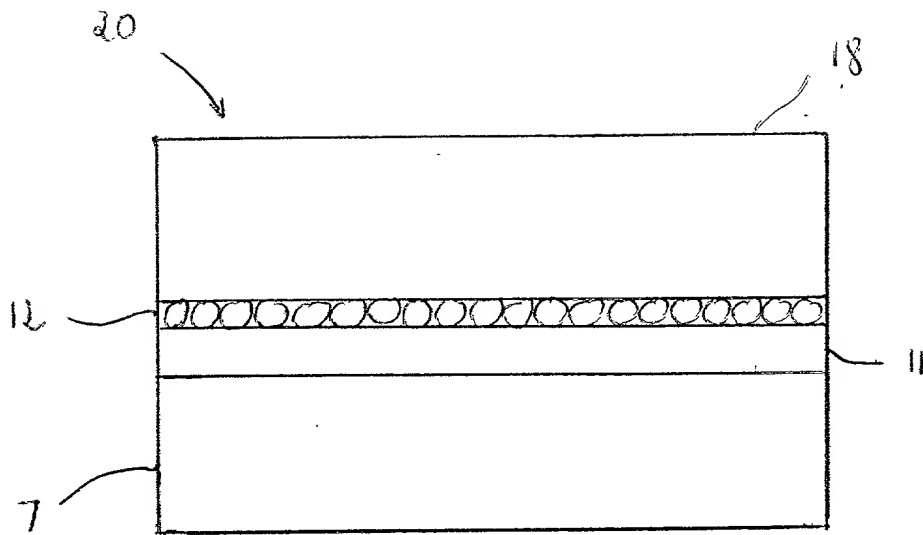


Fig. 7

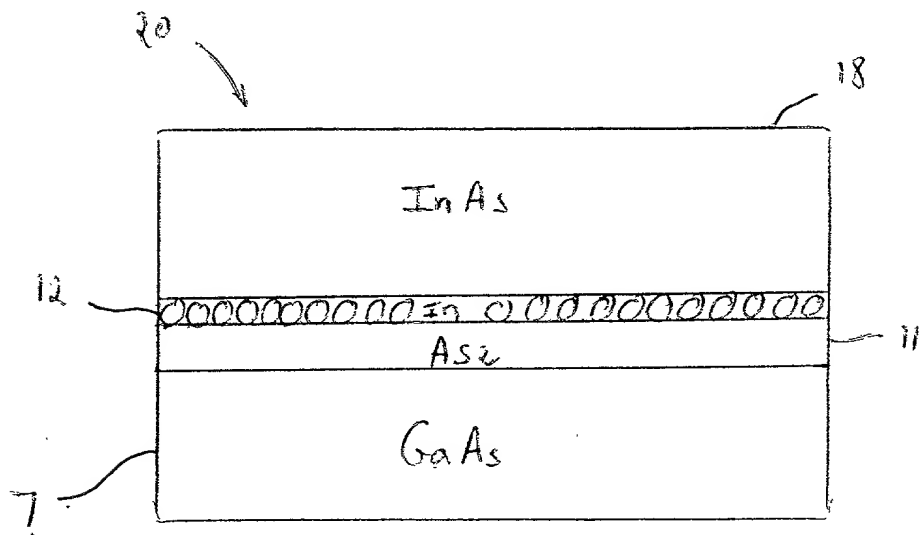


Fig. 8